

# **Ideas for Getting the HSF Started**

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# Starting up HSF - First Considerations

- Focused efforts + broad inclusiveness
- Can we achieve both? If we can engage the broad community effectively, as well as core volunteers
  - Focused efforts on priorities by core volunteers
  - Plus, seed & encourage broad involvement such that community engagement amplifies the effort
- What software domains, packages are early targets to try to bring into the foundation?
  - Will guide the early contacts we establish to encourage participation and gather input

# Initial Organization

## Understanding & Proposal based on the discussions

- Should be lightweight, transparent, open
- Charge a smallish 'startup team' with putting the HSF in place
  - PM, TW volunteer/are volunteered to steer and coordinate
  - Enlist additional members to provide broad representation and expertise
  - Be flexible as to the membership, let it evolve, e.g. to take advantage of motivated experts becoming interested and available
  - Keep it practical, technical, results-driven, responsive to input, consultative
  - Early experience can guide a longer term organization
- Startup team works in an open way, complemented and aided by active ongoing community discussion, meetings
  - Take over this slot for a startup team meeting every week
    - Limited attendance to make it effective, but open & prompt minutes
  - And every 4 weeks the meeting is fully open
  - Complemented by animated discussions & info exchange (cf. slide 7)
- As we accrue active participants, recognize them as such: HSF members
  - HSF will at some point begin to recognize organizations as members but we start with *people*

# Early focus: HEP communities

Start contacts with HEP communities to focus on initially

- LHC
- High intensity, neutrino
- Belle II, b physics
- Linear Collider
- Theory
- Astrophysics and Astroparticle
- ...

Identify key people and organize meetings with them

- Assess level/areas of interest, what they can bring, their priorities
- What could HSF provide that they don't already have and that could bring a real benefit to them

Important inputs to this process are the already written White Papers.  
We need to digest them and produce a synthesis

# Early focus: Software domains

- Make ‘scientific software’ an early focus
  - Software to process the data coming from the detectors up to the publication of physics results
  - Simulation; MC generators; reconstruction, calibration, alignment algorithms; analysis tools; statistical tools; etc.
  - Many/most new architecture/concurrency challenges are in this domain
- Include software addressing data-intensive challenges early as well? It’s a challenge up there with new architectures/concurrency
- For other areas, rely on community engagement & initiatives, or leave for later
  - Distributed software, middleware
  - DAQ/online
  - ...

# Early focus: Software packages

- Establish the initial 'guinea pig' packages to include in the foundation
  - Packages we target as initial priorities, and packages whose developers are strongly interested in being early adopters and active contributors
- Handle packages at different stages
  - Existing, well established packages not requiring significant change
    - e.g. Pythia6
  - Packages in active development as common software
    - by developers strongly interested in being early adopters and active contributors
  - Established packages in need of re-engineering, adaptation to the new computing landscape such as vectorization, parallelization
    - e.g. ROOT, Geant4, ...
  - New packages and R&D initiatives that are good candidates to make use of the foundation from the beginning
    - e.g. USolids/VecGeom
- Establish the guidelines for incorporating and managing these initial sets of packages
- Collect the input provided by developers, integrators and final users

# Early focus: Community engagement, communication, information exchange

An initial task list was circulated and discussed reflecting a largely common view from the various inputs and discussions. Item 1 is

*Animate discussions between all stakeholders, including users; provide a system for facilitating information exchange*

- Should indeed be a top priority
- Startup team should define and establish how we do this, as early as possible

# Initial Services & Activities

As a result of the scope definition, HEP community discussions, synthesis of the white papers, and community input/engagement, define the foundation's initial services and activities

- A prioritized list of services and activities to target first
- For each of them
  - Define objectives and implementation timescale
  - Estimate required resources
  - Identify participation
  - Get started



# Early 2015 Workshop (Jan/Feb)

Early 2015 seems the right timescale to have enough material on interest, priorities, possible contributions, initial activities to have a productive next workshop

Contributions could come from

- Vision from the the various HEP communities
- Requirements, priorities from package authors
- Proposals of new development projects
- Initiatives, input arising from community engagement

**And following that...**

How best to make use of CHEP? Special session during?  
With remote participation

# Summary - Next steps

- Establish an inclusive, representative startup team
- Make a plan for meetings, communication, engagement
- Move quickly to an agreed initial work plan
- Begin consultations, synthesizing inputs, community engagement
- Define and initiate the first services and activities
- Work with early guinea pigs to get a functioning HSF V0 off the ground
- Begin to build a HSF membership of active participants
- Meet at a workshop in early 2015 to report, assess and plan
  - Somewhere other than CERN
  - With support for remote participation

# Startup team volunteers to date

Daniel Elvira (FNAL)

Frank Gaede (DESY)

Michel Jouvin (LAL, IN2P3)

Pere Mato (CERN)

Dario Menasce (INFN)

Torre Wenaus (BNL)

...and we welcome more participants who can be actively engaged and represent additional parts of the community

# John, Federico assembled an initial task list synthesising the discussions, have we hit the points?

1. Animate discussions between all stakeholders, including users, provide a system for facilitating information exchange. **Initial priority**
2. Discuss with experiments & users their needs; where are improvements needed - performance, maintainability, etc. **Initial priority**
3. Discuss with existing projects their priorities; what impact can the Foundation have for them. **Initial priority**
4. Collect ideas from the user & developer community for starting new projects; what support is needed. **Initial priority (organized discussions, plus input/dialogue coming from 1.)**
5. Start to put together a 'programme of work' in time for discussion at the next workshop; look for contributors. **Initial priority**
6. Start to prepare a special session at CHEP. **We should make use of CHEP (without excluding the many who won't be there), and define soon how best to do so**
7. Define the agenda of the next workshop. **Aim for early 2015, with objectives defined well in advance**
8. Go through the white papers submitted and provide a synthesis that would clearly define the structure and the composition of the foundation. **Initial priority**
9. Prepare a tentative timeline for the establishment of the foundation, together with a timeline for the results that are expected to be achieved by the foundation. **Initial priority**
10. Discuss with the current projects to see which ones could form the initial core of the foundation. **Initial priority**
11. Remain open to the contribution of "other sciences" to see how they could participate to the foundation. **Open from the beginning to proactive initiatives from other sciences, but initial core focus is on HEP**